

ABSTRACT

The invention provides a projection screen, wherein clear images can be obtained without being influenced by projection environments, the flexibility can be obtained, and its manufacturing cost can be reduced and its manufacturing method. An optical multilayer film is formed on a transparent substrate by alternately layering metal films and dielectric films by using sputtering. This multilayer film has the high reflection characteristics in relation to three primary colors wavelength bands lights, and has the high absorption characteristics in relation to lights other than the three primary colors wavelength bands lights. Therefore, the white level and the black level of images can be raised. Further, in terms of the optical multilayer film, as the film thickness dependence of the reflectance change becomes smaller and the incidence angle dependence of reflectance change becomes smaller, a wide visual field angle can be obtained.